

REMARKS

This application has been reviewed in light of the Office Action dated October 31, 2005. Claims 86, 87, 97, 108, and 110-125 are presented for examination, of which Claims 86 and 97 are in independent form. Claims 86, 87, 97, 108, and 110 have been amended to define more clearly what Applicants regard as their invention. Claims 92, 96, 104, and 109 have been canceled, without prejudice or disclaimer of subject matter. Claims 111-125 have been added to provide Applicants with a more complete scope of protection. Favorable reconsideration is requested.

Claims 86, 87, 92, 96, and 108 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 6,584,534 (*Kobayashi*) in view of U.S. Patent 6,751,221 (*Saito et al.*) and either (1) U.S. Patent 6,363,461 (*Pawlowski et al.*) or (2) U.S. Patent 5,748,629 (*Caldera et al.*); and Claims 97, 104, 109, and 110, were rejected as being obvious from *Kobayashi* in view of *Saito et al.*

Applicants respectfully request the Examiner to include a Notice of References Cited form listing the newly cited reference (U.S. Patent 6,751,221 to *Saito et al.*) in his next communication.

The present invention is directed to a communication network including at least two interconnected communication networks, via a communication device, the first network being a communication bus transporting data packets in isochronous and asynchronous modes, and the second network being a packet-switching network transporting data packets in connected and non-connected modes.

Independent Claim 86 is directed to a method of data packet transmission from a first network to a second network via a communication device interconnecting the

first and second networks, one of the first and second networks being a communication bus transporting data packets in isochronous and asynchronous modes, the other one of the first and second networks being a packet-switching network transporting data packets in connected and non-connected modes. In the method of Claim 86, data packets are received from the first network in a reception memory of the communication device. A storage area internal to the communication device is reserved and is adapted to the mode in which data packets are received from the first network. The received data packets are stored in the reserved internal storage area of the communication device, and the data packets are transmitted to the second network through the reserved internal storage area in a mode associated with the receiving mode. According to Claim 86, in a case in which the isochronous mode is associated with the connected mode, the reserving step is performed before the communication device receives data packets from the first network, and in a case in which the asynchronous mode is associated with the non-connected mode, the reserving step is performed after the communication device receives data packets from the first network.

Notably, in the method of data packet transmission of Claim 86, data packets are received in a reception memory of a communication device interconnecting first and second networks, and a storage area internal to the communication device is reserved and is adapted to a receiving mode in which data packets are received.

Kobayashi relates to a communication apparatus provided with synchronous transfer function and asynchronous transfer function. Figures 2A and 2B of that patent illustrate an example of a configuration of a communication system composed of digital

devices (201 and 202 in Figure 2A).

Applicants submit that nothing in *Kobayashi* would teach or suggest reserving a storage area internal to a communication device, where the reserved internal storage area is adapted to a mode in which data packets are received from a first network, as recited in Claim 86. In contradistinction to the method recited in Claim 86, where a storage area internal to a communication device is reserved and is adapted to a receiving mode in which data packets are received, the system of *Kobayashi* is merely reserving a communication band for transferring an isochronous packet. See col. 7, lines 15 *et seq.* (cited in the Office Action).

Further, the Office Action in the paragraph bridging pages 2 and 3 concedes that *Kobayashi* does not teach that (1) resources are allocated when they are “adapted to a receiving mode” for isochronous packets before the second network receives packets from the first network, and (2) when asynchronous packets are sent, allocation of the resources occurs after the communication device receives the packets from the first network, and cites column 37, lines 35 *et seq.* of *Saito et al.* as teaching the reserving of resources via a channel for isochronous packets.

Saito et al., as understood by Applicants, relates to a data transmitting node and a network interconnection node suitable for use in a home network environment and, as shown in Fig 39, reserves a bandwidth and an isochronous channel number or a destination address with an specific register offset by a setting in a register of an isochronous resource manager, in order to transmit video signals by reserving the necessary bandwidth. In contradistinction to the method recited in Claim 86, where a storage area internal to a communication device is reserved and is adapted to a receiving mode in which

data packets are received, the system of *Saito et al.* is merely reserving bandwidth on a network.

Pawlowski et al., as understood by Applicants, relates to memory resource arbitration based on dedicated time slot allocation, and in particular to computer systems that employ a method for minimizing central processing unit (CPU) memory latency while transferring streaming data. In the system of *Pawlowski et al.*, a memory arbiter can service an asynchronous request if time remains in an asynchronous service period and independently of the number of isochronous requests that are pending. See col. 6, lines 12-16 of *Pawlowski et al.*, cited in the Office Action, for example.

Caldera et al., as understood by Applicants, relates to allocated and dynamic bandwidth management, and in particular an ATM network switch and method of utilization for adaptively providing integrated services therein. In the system of *Caldera et al.*, the allocated bandwidth is assigned by Call Acceptance Control Software, and the assignment of dynamic bandwidth depends on the instantaneous utilization of switch resources, and is controlled by a bandwidth arbitrator. See col. 6, lines 8-17 of *Caldera et al.*, cited in the Office Action, for example.

Further, Applicants submit that nothing in *Kobayashi, Saito et al.*, and either *Caldera et al.* or *Pawlowski et al.*, whether considered separately or in any permissible combination (if any) would teach or suggest the features recited in Claim 86 of receiving data packets from a first network in a reception memory of a communication device, and reserving a storage area internal to the communication device, where the reserved internal storage area is adapted to a mode in which data packets are received from the first network.

Accordingly, Claim 86 is seen to be clearly allowable over the cited references, whether considered separately or in any permissible combination (if any).

Independent Claim 97 is a device claim corresponding to method Claim 86, and is believed to be allowable over the cited references for at least the reasons presented above in connection with Claim 86.

The other claims in this application depend from one or the other of the independent claims discussed above and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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